

Estimated Station Coal Burn, Both Units at 950 MWG

Station Annual Coal Burn for Various Capacity Factors and Coal Quality								
Coal BTU/LB	88.00%	89.00%	90.00%	91.00%	92.00%	93.00%	94.00%	95.00%
12000	5,431,492	5,493,214	5,554,935	5,616,657	5,678,378	5,740,100	5,801,821	5,863,543
11950	5,454,218	5,516,198	5,578,177	5,640,157	5,702,137	5,764,117	5,826,096	5,888,076
11900	5,477,135	5,539,375	5,601,615	5,663,855	5,726,095	5,788,336	5,850,576	5,912,816
11850	5,500,245	5,562,748	5,625,251	5,687,753	5,750,256	5,812,759	5,875,262	5,937,765
11800	5,523,551	5,586,319	5,649,086	5,711,854	5,774,622	5,837,389	5,900,157	5,962,925
11750	5,547,056	5,610,090	5,673,125	5,736,160	5,799,195	5,862,229	5,925,264	5,988,299
11700	5,570,761	5,634,065	5,697,369	5,760,673	5,823,977	5,887,282	5,950,586	6,013,890
11650	5,594,670	5,658,246	5,721,821	5,785,397	5,848,973	5,912,549	5,976,125	6,039,700
11600	5,618,785	5,682,635	5,746,484	5,810,334	5,874,184	5,938,034	6,001,884	6,065,734
11550	5,643,109	5,707,235	5,771,361	5,835,487	5,899,614	5,963,740	6,027,866	6,091,992
11500	5,667,644	5,732,049	5,796,454	5,860,859	5,925,264	5,989,669	6,054,074	6,118,479

Notes:

1. Based on an estimated Gross Annual Heat Rate of 8900 BTU/KWH and both units at 950 MWG maximum capacity.
2. Average as-fired coal quality for the first quarter of fiscal year 2002-03 is 11,682 BTU/LB, September only was 11,596 BTU/LB
3. Annual Capacity Factors for the three previous years and the fiscal-year-to-date (7/1/03 to 9/30/03) are as follows

FYTD	97.35%
2002-03	89.75%
2001-02	90.98%
2000-01	91.65%
4. Assuming 35 days per year for scheduled outages (no forced outages) and a 97% output factor, the capacity factor would be 92.35%.

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CALCULATION OF ESTIMATED COAL BURN

Basis for December, 2002 Calculation

The calculation completed in December, 2002 was based on the following:

From 2001-02 Production Report

Gross Station Heat Rate: 9027 BTU/KWH (9028 after coal pile adjustment)

As Fired Coal Heating Value: 11,824 BTU/LB

Actual Coal Burn: 5,340,186 Tons

Capacity Factor: 90.98%

Calculated Coal Burn for 2001-02 normalized for 90% Capacity Factor :

$$= 9027 \text{ BTU/KWH} (950,000 \text{ KW}) (24 \text{ H}) (365) (0.9 \text{ CF}) (1/11824 \text{ BTU/LB}) (1/2000 \text{ LBS/TON})$$

$$= 5,267,224 \text{ Tons per Year @ 90\% CF for the station before uprate}$$

From Unit 2 post upgrade performance testing, we gained 19 MW from efficiency.

Assuming linear coal flow, annual coal usage should be the following:

$$= (950 \text{ MW} / (875 + 19)) \text{ MW} (5,267,224 \text{ tons per year}) = 5,597,079 \text{ tons per year}$$

Increased coal burn for 90% CF, both units at 950 MW

$$\underline{5,597,079 - 5,267,224 = 329,855 \text{ Tons}}$$

Economic Analysis Unit Uprate Project

Project Information and Economic Factors

Life of Project (Years)	20
Cost of Replacement Energy (\$/MWH)	\$25
Interest Rate	6.35%
Net Generation Increase with HP Turbine Upgrade Only (MW)	25
Net Generation Increase With All Modifications (MW)	75
Fuel Cost Spot Market (\$/MBTU)	\$1.45
Total Project Cost (\$1,000's)	\$26,705
Annual Station Capacity Factor	90%

Economic Results

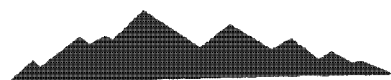
Capital Cost per KW Increase (\$/KW)	\$178
Payback (Years)	17.99
Benefit/Cost Ratio	1.1
Cost of Additional Power (Mils/KWH) See Note 2 & 4	11.5

Performance Comparisons

	<u>Before</u>	<u>After</u>
Station Gross Capacity (MW)	1750	1900
Estimated Unit Gross Heat Rate (BTU/KWH)	9028	8836
Estimated Annual Station Coal Burn (Tons/Year)	5,267,224	5,597,079
Estimated Station Auxiliary Loads (MW)	93	99

Notes:

1. Capital Cost per KW increases equals the total project cost divided by the net generation increase with all modifications
2. Cost of additional power equals capital cost of the project amortized over 20 years plus the cost of the increased fuel burn per year divided by the annual net generation increase with all modifications.
3. Spot market price of fuel is used because the increased coal usage will be purchased outside of the long term contracts.
4. O&M costs are not included in the cost of additional power because it is assumed that they will not increase significantly as a result of the project.



INTERMOUNTAIN POWER SERVICE CORPORATION

INTERMOUNTAIN GENERATING STATION

MONTHLY PRODUCTION REPORT
FISCAL YEAR TO DATE (7/1/02 - 6/30/03)

GENERATION

Station		Unit #1	Unit #2	Facility
Gross Generation	(Mw-hr)	6,745,182	7,350,500	14,095,682
Auxiliary Power	(Mw-hr)	361,456	407,850	769,306
Percent Aux Power	(%)	5.36	5.55	5.46
Net Facility Generation	(Mw-hr)	6,383,726	6,942,650	13,326,376

HEAT RATE

		Unit #1	Unit #2	Facility
¹ Gross Unit Heat Rate	(Btu/kw-hr)	9,029	8,969	8,998
¹ Net Facility Heat Rate	(Btu/kw-hr)	9,540	9,496	9,517

FUEL

USAGE		Unit #1	Unit #2	Station
Coal Usage	(tons)	2,592,849	2,806,392	5,399,241
² 6/4/03 Inv Correction	(tons)	1,068	1,155	2,223
² Corrected Coal Usage	(tons)	2,593,917	2,807,547	5,401,464
Fuel Oil	(gallons)	233,179	321,408	554,587
Fuel Oil Heat Input	(%)	0.05	0.07	0.06

INVENTORY		Starting Inv	Deliveries	Usage	Ending Inv
² Total Coal	(tons)	1,046,641	5,324,280	5,401,464	969,457
Fuel Oil	(gallons)	1,024,338	586,045	554,587	1,055,796

QUALITY

Coal (as-fired)			Fuel Oil (as-fired)		
Heating Value	(Btu/lb)	11,733	Heating Value	(Btu/lb)	19,235
Sulfur	(%)	0.59	Density	(lb/gal)	7.23
Ash	(%)	9.92	Sulfur	(%)	0.29

AQCS PERFORMANCE

		Unit #1	Unit #2
Stack Opacity	(%)	2.46	5.00
SO2 Emissions	(lbs/MBtu)	0.05	0.05
Scrubber Removal	(%)	94.6	94.6
Nox Emissions	(lbs/MBtu)	0.39	0.38

¹ Heat rates calculated using corrected coal usage.² Coal use correction based on 6/4/03 stockpile book value adjustment to the physical inventory value.

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FISCAL YEAR TO DATE (7/1/02 - 6/30/03)

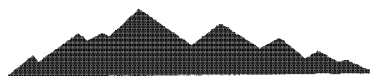
AVAILABILITY (IGF)

(IGF includes production (IGS), conversion (ICS), and transmission (STS) systems)

	Unit #1	Unit #2	Facility
# Unit Shutdowns	10	3	13
Forced Outage Hours	147.80	31.09	178.89
Maintenance Outage Hours	94.40	0.00	94.40
Planned Outage Hours	694.83	311.05	1,005.88
Reserve Shutdown Hours	0.00	0.00	0.00
Total Hours Off-line	937.03	342.14	1,279.17
Equi Forced Derate Hours	6.34	8.20	14.54
Equi Maintenance Derate Hours	0.72	1.69	2.41
Equi Planned Derate Hours	29.80	42.07	71.87
Total Equi Derate Hours	36.86	51.96	88.82
Availability (%)	89.30	96.09	92.70
Eq Availability Factor (%)	88.88	95.50	92.19
Forced Outage Rate (%)	1.85	0.37	1.09
Eq Forced Outage Rate (%)	1.93	0.47	1.18
Eq Unplan Outage Rate (%)	3.09	0.49	1.76
Net Capacity Factor (%)	86.75	92.69	89.75
Net Output Factor (%)	97.14	96.46	96.82

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INTERMOUNTAIN POWER SERVICE CORPORATION

INTERMOUNTAIN GENERATING STATION

MONTHLY PRODUCTION REPORT
FISCAL YEAR TO DATE (7/1/01 - 6/30/02)

GENERATION

Station		Unit #1	Unit #2	Facility
Gross Generation	(Mw-hr)	7,139,814	6,855,610	13,995,424
Auxiliary Power	(Mw-hr)	379,010	365,670	744,680
Percent Aux Power	(%)	5.31	5.33	5.32
Net Facility Generation	(Mw-hr)	6,760,804	6,489,940	13,250,744

HEAT RATE

		Unit #1	Unit #2	Facility
¹ Gross Unit Heat Rate	(Btu/kw-hr)	9,041	9,016	9,028
¹ Net Facility Heat Rate	(Btu/kw-hr)	9,547	9,524	9,536

FUEL

USAGE		Unit #1	Unit #2	Station
Coal Usage	(tons)	2,726,754	2,611,316	5,338,070
² 6/5/02 Inv Correction	(tons)	1,081	1,035	2,116
² Corrected Coal Usage	(tons)	2,727,834	2,612,351	5,340,186
Fuel Oil	(gallons)	291,534	228,410	519,944
Fuel Oil Heat Input	(%)	0.06	0.05	0.06

INVENTORY		Starting Inv	Deliveries	Usage	Ending Inv
² Total Coal	(tons)	874,285	5,512,542	5,340,186	1,046,641
Fuel Oil	(gallons)	837,984	706,298	519,944	1,024,338

QUALITY

Coal (as-fired)			Fuel Oil (as-fired)		
Heating Value	(Btu/lb)	11,824	Heating Value	(Btu/lb)	19,235
Sulfur	(%)	0.57	Density	(lb/gal)	7.23
Ash	(%)	9.76	Sulfur	(%)	0.29

AQCS PERFORMANCE

		Unit #1	Unit #2
Stack Opacity	(%)	2.23	3.01
SO2 Emissions	(lbs/MBtu)	0.06	0.05
Scrubber Removal	(%)	93.8	93.8
Nox Emissions	(lbs/MBtu)	0.43	0.41

¹ Heat rates calculated using corrected coal usage.² Coal use correction based on 6/5/02 stockpile book value adjustment to the physical inventory value.

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FISCAL YEAR TO DATE (7/1/01 - 6/30/02)

AVAILABILITY (IGF)

(IGF includes production (IGS), conversion (ICS), and transmission (STS) systems)

	Unit #1	Unit #2	Facility
# Unit Shutdowns	7	1	8
Forced Outage Hours	158.22	0.00	158.22
Maintenance Outage Hours	61.67	0.00	61.67
Planned Outage Hours	175.35	709.92	885.27
Reserve Shutdown Hours	0.00	0.00	0.00
Total Hours Off-line	395.24	709.92	1,105.16
Equi Forced Derate Hours	8.33	10.71	19.04
Equi Maintenance Derate Hours	0.19	0.00	0.19
Equi Planned Derate Hours	19.39	38.50	57.89
Total Equi Derate Hours	27.91	49.21	77.12
Availability (%)	95.49	91.90	93.69
Eq Availability Factor (%)	95.17	91.33	93.25
Forced Outage Rate (%)	1.86	0.00	0.95
Eq Forced Outage Rate (%)	1.95	0.13	1.07
Eq Unplan Outage Rate (%)	2.66	0.13	1.44
Net Capacity Factor (%)	92.99	88.98	90.98
Net Output Factor (%)	97.38	96.83	97.11

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INTERMOUNTAIN GENERATING STATION

MONTHLY PRODUCTION REPORT
FISCAL YEAR TO DATE (7/1/00 - 6/30/01)

GENERATION

Station		Unit #1	Unit #2	Facility
Gross Generation	(Mw-hr)	6,747,662	7,330,482	14,078,144
Auxiliary Power	(Mw-hr)	354,249	396,251	750,500
Percent Aux Power	(%)	5.25	5.41	5.33
Net Facility Generation	(Mw-hr)	6,393,413	6,934,231	13,327,644

HEAT RATE

		Unit #1	Unit #2	Facility	Station
¹ Corr Gross Heat Rate	(Btu/kw-hr)	9,026	8,981	9,003	
² Corr Net Heat Rate	(Btu/kw-hr)	9,527	9,494	9,510	9,494

FUEL

USAGE		Unit #1	Unit #2	Station
Coal Usage	(tons)	2,583,682	2,793,283	5,376,965
² 6/6/01 Inv Correction	(tons)	(15,293)	(16,534)	(31,827)
² Corrected Coal Usage	(tons)	2,568,389	2,776,749	5,345,138
Fuel Oil	(gallons)	265,365	203,525	468,890
Fuel Oil Heat Input	(%)	0.06	0.04	0.05

INVENTORY		Starting Inv	Deliveries	Usage	Ending Inv
² Total Coal	(tons)	981,718	5,237,705	5,345,138	874,285
Fuel Oil	(gallons)	881,202	425,672	468,890	837,984

QUALITY

Coal (as-fired)			Fuel Oil (as-fired)		
Heating Value	(Btu/lb)	11,850	Heating Value	(Btu/lb)	19,211
Sulfur	(%)	0.50	Density	(lb/gal)	7.12
Ash	(%)	8.62	Sulfur	(%)	0.38

AQCS PERFORMANCE

		Unit #1	Unit #2
Stack Opacity	(%)	2.49	3.25
SO2 Emissions	(lbs/MBtu)	0.05	0.05
Scrubber Removal	(%)	93.7	93.7
Nox Emissions	(lbs/MBtu)	0.43	0.40

¹ Heat rates calculated using corrected coal usage.

² Coal use correction based on 6/6/01 stockpile book value adjustment to the physical inventory value.

FISCAL YEAR TO DATE (7/1/00 - 6/30/01)

AVAILABILITY (IGF)

(IGF includes production (IGS), conversion (ICS), and transmission (STS) systems)

	Unit #1	Unit #2	Facility
# Unit Shutdowns	8	3	11
Forced Outage Hours	149.61	45.42	195.03
Maintenance Outage Hours	15.95	0.00	15.95
Planned Outage Hours	720.04	158.10	878.14
Reserve Shutdown Hours	0.00	0.00	0.00
Total Hours Off-line	885.60	203.52	1,089.12
Equi Forced Derate Hours	5.97	10.47	16.44
Equi Maintenance Derate Hours	0.00	0.38	0.38
Equi Planned Derate Hours	13.69	9.91	23.60
Total Equi Derate Hours	19.66	20.76	40.42
Availability (%)	89.89	97.68	93.78
Eq Availability Factor (%)	89.67	97.44	93.55
Forced Outage Rate (%)	1.86	0.53	1.17
Eq Forced Outage Rate (%)	1.94	0.65	1.27
Eq Unplan Outage Rat (%)	2.13	0.65	1.37
Net Capacity Factor (%)	87.93	95.37	91.65
Net Output Factor (%)	97.82	97.64	97.73